Guntersville Fire/Rescue

1745 Blount Avenue
Guntersville, AL 35976
(256) 571-7577

Bid Title: (1) New Portable Cardiac Monitor/Defibrillator
Bid Opening Date: October 9, at 1:00 p.m.
Delivery Date: See Attached Specifications

The Guntersville Fire Department is accepting sealed bids for the purchase of **(1) New Portable Cardiac Monitor,** as described in the attached spec list. Any questions regarding this equipment should be directed to the **Deputy Chief Brian Walls, Guntersville Fire Department, at (256) 677-3473.**

Please quote lowest price and best delivery on said item. Advise what discount, if any will be allowed for pre-payment (Maximum of 25% will be allowed). Terms and delivery date must be specified. Advanced payment bond is required and the bond should be equal to, or greater than, the sum of any payments, compensation and/or other fees considered provided prior to the delivery of the equipment. Bid should include **pricing guarantee for 90 days from time of Bid submission**.

Right is reserved to accept or reject bids on each item separately or as a whole, to reject any bids, to waive informalities or irregularities, to negotiate contract terms and options with the successful low bidder, and to contract for the bid to other than the lowest bidder in the best interest of the Guntersville Fire Department.

All bids must be submitted in a sealed envelope plainly marked, **"Cardiac Monitor Bid",** with the name and address of the bidder in the upper left hand corner and accompanied by complete specifications for the item offered. **Emailed and facsimile responses are not acceptable.** No responsibility will attach the owner or any official or employee thereof for the pre-opening of, or the failure to open a proposal not properly addresses and identified.

BIDS RECEIEVED AFTER THE DATE AND TIME SPECIFIED WILL BE REJECTED. BIDS MUST BE SEALED, MARKED, AND DELIVERED TO:

Mail To:
Attn: Brian Walls
Guntersville Fire Department
341 Gunter Avenue
Guntersville, Al. 35976

Overnight To:
Attn: Brian Walls
Guntersville Fire Department
341 Gunter Avenue
Guntersville, Al. 35976

AN INVITATION TO BID

INSTRUCTIONS TO BID

1.1 **Purpose:** The purpose of this document is to provide general and specific information for use by vendors in submitting a bid to supply the City of Guntersville with equipment, supplies, and or services as listed above. All bids are governed by local ordinance and the Code of Alabama

1.2 **How to Prepare Bid Proposals:** All bid proposals shall be:
(A) Prepared on the forms enclosed herewith, unless otherwise prescribed. Additional BID package documents are allowed.
(B) Typewritten or completed with pen and ink, signed by the vendor or his authorized representative, with all erasures or corrections initialed and dated by the official signing the proposal. Bidders are encouraged to review carefully all provisions and attachments of this document prior to completion. Each bid constitutes an offer and may not be withdrawn except as provided herein. Also, prices are to remain firm for the period stated herein.

1.3 **How to Submit Bid Proposals:** All bid proposals shall be:
(A) Submitted in sealed opaque envelope, plainly marked with the bid number and equipment, supply and/or service description listed above.
(B) Mailed or delivered as follows in sufficient time to ensure receipt by the City Clerk on or before 2:00 P.M. on the date specified in the first paragraph of the above letter of invitation.

1. Mailing Address: **City Clerk, 341 Gunter Avenue, Guntersville, Alabama 35976.**
2. (b) Hand Delivery Address: **City Clerk, 341 Gunter Avenue (City Hall), Guntersville, Alabama 35976.**
3. (c) Bids not received by the time and date specified in the first paragraph of page one of this document will not be opened.

1.4 **How to Submit an Objection:** Objections from bidders to the invitation to bid and/or these specifications should be brought to the attention of the **City Clerk,** in the following manner.
(A) When a pre-bid conference is scheduled, bidders should either present their oral objection at that time or submit their written objections at least 2 days prior to the scheduled conference.
(B) When a pre-bid conference is not scheduled, the bidders should object in writing at least 3 days prior to the opening of the bids.
(C) Failure to object in accordance with the above procedure shall constitute a waiver on the part of the vendor to protest the solicitation.

1.5 **Decision to file a "No Bid":** If a bid is not submitted, bidder should return bid sheets, stating reason therefore, and indicate whether the business should be retained or removed from the City's mailing list. **The outside of the envelope should clearly be marked "No Bid"**

1.6 **Errors in Bids:** Bidders or their authorized representatives are expected to fully inform themselves as to the conditions, requirements and specifications before submitting bids. Failure to do so will be at the bidders' own risk. In case of error in extension of prices in the bid, the unit prices shall govern.

1.7 **Standards for Acceptance of Bid for Award Contract:** The City reserves the right to reject any or all bids and to waive any irregularities or technicalities in bids received whenever such rejections or waiver is in the interest of the City. The City reserves the right to reject the bid of a bidder who has previously failed to perform properly or complete on time contracts of a similar nature, or a bid from a bidder whom investigation shows is not in a position to perform the contract.

1.8 **Bidder:** Whenever the term "bidder" is used it shall encompass the "contractor", "purchaser" or other party having a contract with the City in such capacity after a contract has been entered into or between such party and the City.

1.9 **Compliance with laws:** The bidder shall obtain and maintain all licenses, permits, liability insurance, workman's compensation insurance and comply with any and all other standards or regulations required by federal, state or City statute, ordinances and rules during the performance of any contract between the bidder and the City. Any such requirement specifically set forth in any contract document between the bidder and the City shall be supplementary to this section and not in substitution thereof.

GENERAL CONDITIONS

2.1 **Specifications:** Any obvious error or omission in specifications shall not inure to the benefit of the bidder but shall put the bidder on notice to inquire of or identify the same from the City. Whenever mention is made of any article, material, or workmanship to be in accordance with laws, ordinances, building codes, underwriter's codes, A.S.T.M. regulations or similar expressions, the requirements of these laws, ordinances, etc., shall be construed to be the minimum requirements of these specifications.

2.2 **Delivery Point:** Unless otherwise stated, all items shall be quoted and delivered F.O.B. Destination (i.e., at a specific City of Guntersville address), and delivery cost and charges (if any) will be included in bid price.

2.3 **Cash Discounts (Terms):** Unless otherwise specified, prompt payment cash discounts will be considered in determining cost. A minimum of ten (10) working days must be allowed for an offered prompt payment discount in order to be considered in making an award.

2.4 **Delivery Time:** When delivery time is requested in invitation documents, time will be of the essence; therefore, bid shall include the delivery date. In some instances, the City may specify an outside delivery date.

2.5 **Preparation For Delivery:**

(A) Packing - Packing shall be accomplished in accordance with acceptable commercial practices for domestic shipments, unless otherwise stated in the contract or purchase order. The vendor shall make shipments using the minimum number of containers consistent with the requirements of safe transit, available mode of transportation routing. It shall be the vendor's responsibility to determine that packing is done as adequate to assure that all the materials shall arrive at destination in an undamaged condition ready for its intended use.

(B) Marking - All packages shall be identified with the City of Guntersville purchase order number and the using Department. Sealed packing lists must be affixed to all cartons showing its content.
(C) Shipping - The vendor shall follow shipping instructions as stated on the purchase order or contract.

2.6 **Multiple Bids:** No vendor will be allowed to submit more than one bid. Any alternate proposals must be brought to the City Clerk's attention during the Pre-Bid Conference or submitted in writing at least five (3) days preceding bid opening date.

2.7 **Bids for All Or Part:** Unless otherwise specified by the City or by the bidder, **THE CITY OF GUNTERSVILLE RESERVES THE RIGHT TO MAKE AWARD ON ALL ITEMS, OR ON ANY OF THE ITEMS ACCORDING TO THE BEST INTEREST OF THE CITY.** Bidder may restrict his bid to consideration in the aggregate by so stating, but must name a unit price on each item bid upon.

2.8 **Warranties for Usage:** Whenever a bid is sought seeking a source of supply for a specified period of time for materials or services, THE **QUANTITIES OF USAGE SHOWN ARE ESTIMATED ONLY.** No guarantee or warranty of any amount is given or implied by the City as to the total amount that may be purchased from any resulting contracts.

2.9 **Prices to be Firm:** Bidder warrants that bid prices, terms and conditions quoted in his bid will be firm for acceptance for a period of ninety (90) days from opening date.

2.10 **Description of Materials:** Proposals for materials, supplies, vehicles, and/or equipment should be accompanied by copies of detailed factory specifications, ratings, technical data, including accurate descriptions of the exact materials, supplies, vehicles, and/or equipment on which bids are made.

2.11 **Completeness:** All information required by Invitation to Bid must be completed and submitted to constitute a proper bid.

2.12 **Quality:** All materials used for the manufacture or construction of any supplies, materials or equipment covered by this bid shall be new (unless otherwise specified), the latest model, of the best quality, and highest grade workmanship. Vehicles and/or equipment shall be equipped with such necessary equipment complying with current Alabama State Law, but not including licensing. Also, materials must comply with all applicable Federal and State requirements in affect at the time of bid.

2.13 **Acceptance of Material:** The material delivered under this proposal shall remain the property of the seller until a physical inspection and actual usage of this material and/or services is made and therefore accepted to the satisfaction of the City. **IN THE EVENT THAT THE MATERIAL AND/OR SERVICES SUPPLIED TO THE CITY IS FOUND TO BE DEFECTIVE OR DOES NOT CONFORM TO SPECIFICATIONS, THE CITY RESERVES THE RIGHT TO CANCEL THE ORDER UPON WRITTEN NOTICE TO THE SELLER AND RETURN THE PRODUCT TO THE SELLER AT THE SELLER'S EXPENSE AND TO INVOKE THE PROVISIONS OF SECTION 2.22.**

2.14 **Plant and Facility Inspections:** The City Clerk, BID Manager, or Department Head may require the vendor to make his plant and facilities available for inspection; or may require additional information concerning the vendor's ability to perform compliant with the requirements of this specification. Failure to comply with this requirement may cause rejection of the bid package.

2.15 **Guarantee:** Unless otherwise specified by the City, the bidder shall unconditionally guarantee the materials and workmanship on all material and/or services. If, within the guarantee period any defects occur which are due to faulty material and or services, the bidder at his expense, shall repair or adjust the condition, or replace the material and/or services to the complete satisfaction of the City. These repairs, replacement or adjustments shall be made only at such time as will be least detrimental to the operation of City business.

2.16 **Manufacture or Dealer Advertisement:** No manufacturer or dealer advertising attachment shall appear on products delivered to the City without prior approval by the City of Guntersville.

2.17 **Brand Name:** If and wherever brand names, makes, names of manufacturers, trade names, vendor catalogs or model numbers are stated, they are for the purpose of establishing a grade or quality of material.

2.18 **"OR EQUAL" Interpretation:** It is the vendor's responsibility to prove to the City that each bid item is equal to the grade or quality of material specified. On all such bids, the bidder shall indicate clearly the product (brand and catalog or model numbers) on which he is bidding, and shall supply a sample and sufficient data in detail to enable an intelligent comparison to be made with the particular brand or manufacturers specified. Failure to submit the required information will be sufficient grounds for rejection of bid. The City shall be the sole judge concerning the merits of bid submitted. If the vendor has any questions relative to whether his product is equal to the grade or quality of the product specified, he should resolve this issue at the pre-bid conference; however, if the extent of the discussion precludes resolution at the pre-bid conference, the vendor should contact the City Clerk and resolve the issue prior to submission of bid. **NOTHING HEREIN PRECLUDES TESTING AS SPECIFIED BY THE CITY. VENDOR SHALL BEAR EXPENSES OF TESTS.**

2.19 **Certified Test Report:** Each bidder shall provide a copy of a certified test report prior to or with their sealed bids when specified. The certified test report shall be from a recognized independent testing laboratory or manufacturer's quality control laboratory showing all test results and full compliance with the appropriate specification indicated herein. However, the City will bear the cost of any independent tests or consultant services it so chooses to perform.

2.20 **Samples and Demonstrations:** Evidence in the form of samples may be requested. When required, such samples are to be furnished after the date of bid opening only upon request of the City unless otherwise stated in the bid proposal. If samples are requested, unless otherwise authorized, such samples must be received by the City no later than seven (7) days after formal request is made. The City may request full demonstration of any item(s) bid prior to the award of any contract.

Bid samples shall be an exact and true representative sample of the actual material offered. Each bid sample shall be properly tagged or labeled with the name of the bidder and manufacturer, the bid opening date, and the bid number. Bid samples shall be provided at no additional costs to the City. Samples not used for tests will be returned to the bidder at the bidders' expense if so requested.
Furthermore, the City reserves the right to secure additional check samples from the actual material supplied. In the event the check samples fail to conform with the contract requirements, the contractor shall immediately replace the portion of the delivered commodity with acceptable material conforming to the contract requirements at no additional cost to the City.

2.21 **Liability:** Where bidders are required to enter or go onto City of Guntersville property to deliver materials or perform work or services as a result of bid award, the bidder shall be liable for any injury, damage or loss to the City occasioned by negligence of the bidder or his agent or any person the bidder has designated in the completion of his contract as a result of his bid and shall indemnify and hold harmless the City from any liability arising there from. When specified a certificate showing appropriate liability insurance coverage must be submitted to the City Clerk prior to award of the purchase. In connection with its indemnification and Hold Harmless, bidder shall be required to notify its liability insurance carrier and the City of any and all claims for injury, damage or loss occasioned by the negligence or alleged negligence of the bidder (or his agent) or any person the bidder has designated in the completion of his contract.

2.22 **Default Provision:** The contract may be canceled or annulled by the City of Guntersville in whole or in part by written notice of default to the Contractor upon non-performance or violation of contract terms. An award may be made to the next low bidder, for articles and/or services specified or they may be purchased on the open market and, the defaulting Contractor (or his surety) shall be liable to the City of Guntersville for costs to the City in excess of the defaulted contract prices. The Contractor shall continue the performance of this contract to the extent any part is not terminated under the provisions of this clause.

2.23 **Patent Indemnity:** Except as otherwise provided, the successful bidder agrees to indemnify the City and its officers, agents and employees against liability, including costs and expenses for infringement upon any letters or patent of the United States arising out of the performance of this Contract or out of the use or disposal by or for the account of the City of supplies furnished or construction work performed hereunder.

2.24 **Certification of Independent Price Determination:** By submission of this bid, the bidder certifies, and in the case of a joint bid each party thereto certifies as to its own organization, that in connection with this procurement:
(1) The prices in this bid have been arrived at independently, without consultation, communication, or agreement for the purpose of restricting competition, as to any matter relating to such prices with any other bidder or with any competitor;
(2) Unless otherwise required by law, the prices which have been quoted in this bid have not been knowingly disclosed by the bidder and will not knowingly be disclosed by the bidder prior to opening, directly or indirectly to any other bidder or competitor.

(3) No attempt has been made or will be made by the bidder to induce any other person or firm to submit or not to submit a bid for the purpose of restricting competition; and

(4) No agent or employee of the City of Guntersville has been bribed in connection with this bid solicitation.

2.25 **Award of Contract:** The contract, if awarded, will be awarded to the most responsive and responsible bidder whose bid will be most advantageous to the City, price and other factors considered. The City will make the determination.

2.26 **Local Vendor Preference:** None Applicable

2.27 **Qualified Vendor**: A "Qualified Vendor" is defined for this purpose as one who meets, or by the date of bid acceptance can meet, all requirements for licensing, insurance and service contained within these specifications.

2.28 **Compliance with Specifications - Terms and Conditions:** The Invitation to Bid, Legal Advertisement, General Conditions and Instructions to Bidders, Specifications, Special Conditions, Vendor's Bid, Addendum, and/or any other pertinent documents form a part of this proposal and by reference are made a part hereof.

2.29**Signed Bid Considered Offer:** The signed bid shall be considered an offer on the part of the bidder, which offer shall be deemed accepted upon approval by the Mayor and Council of the City of Guntersville, or their designee. In case of a default on the part of the bidder after such acceptance, the City of Guntersville may take such actions as it deems appropriate including legal action for damages or specific performance.

2.30 **Notice to Proceed:** The successful bidder shall not commence work under this invitation to bid until duly notified by receipt of contract signed as executed by the Mayor or his/her designee. If the successful bidder does commence any work prior to receiving official notification, he does so at his own risk.

SPECIAL CONDITIONS

3.1 **Price Change:** Preference shall be given to the bidder submitting the lowest and best firm price as his bid. Should it be found that due to unusual market conditions it is in the best interest of the City to accept a price with an escalation clause, the following shall apply:

(A) Unless otherwise specified, prices shall be reviewed no more often than on a quarterly basis.

(B) Cost data to support any proposed increase must be submitted to the City Clerk no less than 30 days prior to the effective date of any such requested price increase.

(C) Any adjustment allowed shall consist of verifiable material cost increases which may be passed on to the consumer.

(D) No adjustment shall be made to compensate a supplier for inefficiency in operation, or for additional profit.

(E) Bids indicating price in effect at time of shipment will be considered invalid.

3.2 **Bonds:** (Check where applicable)

[**X**] **(A)** Each bidder shall post a **bid bond, certified check or money order** made payable to the City in the amount of 10% of the bid price, not to exceed $10,000. A

company check is **not** acceptable. No bids shall be read or considered without a proper form of security. Code of Alabama, Section 39-2-4, requires this on all BIDS above $10,000.
[ ] **(B)** No bond, certified check, or U.S. Money Order is required.
[ ] **(C)** Bidder shall post a **payment / performance bond, certified check or money order** payable to the City in the amount of 100% of the bid price if awarded the purchase. Such bond(s) are due prior to contract execution as a guarantee that goods meet requirements of the contract including timely delivery, performance specifications and warranty requirements. Such bonds will also guarantee quality performance of services and timely payment of invoices to any subcontractors.
[ ] **(D)** Bidder shall post a **performance bond, certified check or money order** in the amount of % of the bid price if awarded the purchase. Such bond(s) are due prior to contract execution as a guarantee of timely delivery and that equipment, materials and /or goods are delivered according to specifications.
Whenever a bond is provided, it shall be executed by a surety authorized to do business in the State of Alabama, approved by the City. At the discretion of the City, other forms of security may be considered in lieu of a performance bond.

3.3 **City License Requirement:** Contractor must be licensed in the State of Alabama by government entity for which he does the majority of his business. **Contractor must also hold a local business license upon successful award of contract prior to work performed.**

3.4 **Warranty Requirements:** (Check where applicable)
[ ] (A) Provisions of item 2.12 in regards to quality shall apply.
[X] (B) Warranty required.
[X] (a) Standard Warranty shall be offered with bid.
[ ] (b) Extended Warranty shall be offered with bid.

3.5 **Terms of Contract:** (Check where applicable)
[ ] (A) Annual Contract
[**X**] (B) One time Purchase.
[ ] (C) Other

4 **Special Conditions:**

4.1 The EXCEPTION Sheet, the BID PROPOSAL AND COMPLIANCE Form, and the NON-DISCRIMINATION Statement in the BID packet must be completed and returned in their entirety to constitute a complete bid.

4.2 Bids must be submitted in **DUPLICATE**.

4.3 Vendor is responsible for determining and acknowledging any addenda issued in connection with this bid solicitation.

5 **Insurance:**

5.1 The winning vendor shall provide proof of being insured for loss and/or damage to commodities being delivered.

Sections 5.2 through 5.7 pertain to companies doing on-site contractual work for the City of Guntersville.

5.2 The successful vendor must show proof of general liability insurance and standard workmen's compensation policy at the time of award of contract. The amount of liability insurance required under this contract is $500,000. If an authorized subcontractor is used, the primary vendor must show the subcontractor as additionally insured.

5.2 The contractor shall purchase and maintain insurance in the amounts and types shown below for the protection from claims caused by the contractor's personnel or work, or by any subcontractor performing work for the contractor. Insurance shall not be for amounts less than those required by law.

5.3 Worker's Compensation:
The contractor must supply a certificate showing issuance of workmen's compensation coverage.

5.4 Worker's Compensation and Employer's Liability:
Comprehensive General Liability - Coverage shall be written on an occurrence basis. Coverage shall provide against the following risks:

A. Board Form Property Damage
B. Independent Contractors
C. XCU Hazards (explosion, collapse, and underground damage)
D. Contractual Liability (arising from indemnity agreement in contract)
E. Completed Operations
F. Premises & Operations

Comprehensive General Liability coverage shall be combined single limit for bodily injury and property damage and shall be written for the following limits:
$500,000 - General Aggregate Limit
$500,000 - Products - Completed Operations Aggregate Limit
$500,000 - Personal and Advertising Injury Limit
$500,000 - Each Occurrence Limit
$500,000 - Fire Damage Limit
$ 5,000 - Medical Expense Limit(Any one person)
5.5 Commercial catastrophe (Umbrella) Liability shall be written for the following limits:
$500,000 - Each occurrence for Bodily Injury and Property Damage
$500,000 - Annual Aggregate

5.6 OCP - Owner's and Contractor's Protective Liability shall be written for the following limits:
$500,000 - Each occurrence for Bodily Injury and Property Damage
$500,000 - Annual Aggregate

5.7 Comprehensive Automobile Liability shall be written for all owned vehicles, non-ownership liability and hired vehicles and shall be written for the following limits:
$500,000 - Each occurrence for Bodily Injury and Property Damage

EXCEPTION SHEET

If the commodity(s) and/or services proposed in the response to this bid is in anyway different from that contained in this proposal or bid, the bidder is responsible to clearly identify by specification section number, all such differences in the space provided below. Otherwise, it will be assumed that bidder(s) offer is in total compliance with all aspects of the proposal or bid. Below are the exceptions to the stated specifications:

BID PROPOSAL AND COMPLIANCE FORM
City of Guntersville,
Attn: City Clerk, BID N0. FD-01-2012
341 Gunter Avenue
P. O. Box 1027
Guntersville, Alabama 35976

Business Location: (Check One)
Guntersville, Alabama 35976_____ Marshall County_____ Other_____

Name of Bidder: _____
Street Address: _____
City, State. Zip Code: _____
Phone: _____
Email: _____

DO YOU HAVE A BUSINESS LICENSE IN THE STATE OF ALABAMA? (CHECK ONE)
YES:_____ NO: _____
LICENSED BY WHAT CITY/COUNTY _____
BUSINESS LICENSE #: _____ **FED TAX ID #:** _____

INDICATE LEGAL FORM OF OWNERSHIP OF BIDDER (STATISTICAL PURPOSES ONLY):
CHECK ONE: _____ CORPORATION _____ PARTNERSHIP
_____INDIVIDUAL _____OTHER (SPECIFY: _____)

INDICATE MINORITY OWNERSHIP STATUS OF BIDDER
(STATISTICAL PURPOSES ONLY): CHECK ONE:
_____ NON-MINORITY OWNED _____ ASIAN AMERICAN
_____ AFRICAN AMERICAN _____ AMERICAN INDIAN
_____ HISPANIC _____ OTHER MINORITY
_____ WOMAN

Do you plan to subcontract any portion of this project? Yes _____ No _____

THE UNDERSIGNED PROPOSES TO FURNISH THE FOLLOWING ITEMS IN STRICT CONFORMANCE TO THE BID SPECIFICATIONS, AND BID INVITATION ISSUED BY THE CITY OF GUNTERSVILLE FOR THIS BID. ANY EXCEPTIONS ARE CLEARLY MARKED IN THE ATTACHED COPY OF BID SPECIFICATIONS:

A. **Two (2) Advanced Life Support Bi-Phasic cardiac monitor/defibrillator's with the following:**
   1. **3 lead ECG**
   2. **12 lead ECG**
   3. **SpO2 monitoring**
   4. **Non-invasive blood pressure monitoring**
   5. **EtCO2 monitoring**
   6. **AED setting**
   7. **Hands free defibrillation**
   8. **Pacing capabilities**
   9. **Transmission via Fax and/or Data**
   10. **Trending capabilities**
   11. **100mm printer**
   12. **Battery Support System**
   13. **All peripherals**

THIS BID PACKAGE HAS A DETAILED SPECIFICATION PACKAGE INCLUDED. PLEASE REVIEW THE DETAILED SPECIFICATION'S.

TOTAL GROSS BID $_____

PAYMENT TERMS:
PLEASE CHECK ONE AND FILL IN BLANKS

[ ] Less _____% Days Prompt Payment Discount (if offered)
(Minimum of 10 working days must be allowed for discount to be considered in bid award)

[ ] Net - 30 Days (no discount offered)

TOTAL NET BID $_____
==========

TIME REQUIRED FOR DELIVERY AFTER RECEIPT OF ORDER: _____DAYS

CONFIRM RECEIPT OF ANY ADDENDA ISSUED FOR THIS BID:
ADDENDUM # _____, _____, _____, _____
DATE _____

I certify this Bid complies with the General and Specific Specifications and Conditions issued by the City except as clearly marked in the attached copy. The undersigned offers and agrees to furnish any or all items at the BID price and deliver as specified.

_____
Please Print Name

_____
Authorization Signature Date

_____
Date

NON-DISCRIMINATION STATEMENT

The bidder certifies that:

(1) No person shall be excluded from participation in, denied the benefit of, or otherwise discriminated against on the basis of race, color, national origin, or gender in connection with any bid submitted to the City of Guntersville or the performance of any contract Resulting there from;

(2) That it is and shall be the policy of this Company to provide equal opportunity to all business persons seeking to contract or otherwise interested in contracting with this Company, including those companies owned and controlled by racial minorities, cultural minorities, and women;

(3) In connection herewith, We acknowledge and warrant that this Company has been made aware of, understands and agrees to take affirmative action to provide such companies with the maximum practicable opportunities to do business with this Company;

(4) That this promise of non-discrimination as made and set forth herein shall be continuing in nature and shall remain in full force and effect without interruption;

(5) That the promises of non-discrimination as made and set forth herein shall be and are hereby deemed to be made as part of and incorporated by reference into any contract or portion thereof which this Company may hereafter obtain and;

(6) That the failure of this Company to satisfactorily discharge any of the promises of nondiscrimination as made and set forth herein shall constitute a material breach of contract entitling the City of Guntersville to declare the contract in default and to exercise any and all applicable rights and remedies including but not limited to cancellation of the contract, termination of the contract, suspension and debarment from future contracting opportunities, and withholding and or forfeiture of compensation due and owing on a contract.

Signature

Title

Product Specifications for Monitor/Defibrillator

The following specifications are for ONE (1) portable multi-parameter bi-physic monitor/defibrillator.

1. Operating Modes

- **A.** AED Mode; the device shall function with automated ECG analysis and a prompted Protocol for patients in cardiac arrest.
- **B.** Manual Mode; the device shall provide manual defibrillation, synchronized cardioversion, and noninvasive pacing and ECG and vital sign monitoring.
- **C.** Archive mode; the device shall automatically store patient data and will allow the operator to access stored patient records.
- **D.** Setup Mode; the device shall allow the operator to configure the Setup Options of the device.
- **E.** Service Mode; the device shall allow the operator to execute device diagnostic tests and calibrations without the need for physically opening the case.
- **F.** Demo Mode; the device shall provide simulated waveforms and trend graphs for demonstration purposes. The device shall immediately revert to normal clinical operation if a therapy cable is connected.

2. User Interface Controls:

- **A.** All critical emergency therapy controls shall be grouped together in a logical orientation. each control is dedicated to a single function to provide for fast, unambiguous access. these controls include PowerON; CPR controls (CPR Metronome), ENERGY SELECT, CHARGE, ANALYZE, SYNC and SHOCK; and pacing controls PACER, RATE, CURRENT and PAUSE.
- **B.** Critical controls are color coded to enable clear visibility and to help the user distinguish each control for rapid access.
- **C.** All critical measurement controls are dedicated to single function hard keys to provide for fast, unambiguous access. These controls include LEAD, SIZE, NIBP and 12- LEAD.
- **D.** Additional operational controls are dedicated to single function hard keys to provide for fast unambiguous access. These controls include TRANSMIT, PRINT, EVENTS, DISPLAY MODE, CODE SUMMARY and HOME SCREEN.
- **E.** All controls are accessible on the front panel of the device while operating the unit in all typical settings including patient treatment and transport (i.e. equipped with carrying case).
- **F.** All controls operate with a single press except the ON control, which requires the user to push and hold the ON button for a few seconds to turn the device off to prevent turning off the device inadvertently.
- **G.** The SYNC control is located separate from the primary defibrillation controls to prevent accidental activation during cardiac arrest.
- **H.** Audible Prompts, while in Manual mode, the monitor allows the operator to enable or disable voice prompts.
- **I.** Shock tone can be set to ON or OFF when full charge is reached.
- **J.** Volume settings are adjustable for CPR metronome, alarms, QRS beep, voice prompts and tones; some tones can be silenced with one push of a button.
- **K.** Patient Connection, Patient connections: All patient connections are visible and accessible on the front panel of the device while operating the unit in all typical settings including patient treatment and transport (i.e. equipped with carrying case) or when housed on a closed shelf.
- **L.** Therapy Cable offers a solid, positive connection to device that is not vulnerable to shock or impact; it is easily inserted or removed with a gloved hand without the need for additional tools for quick replacement during patient use in case it becomes damaged.
- **M.** ECG cable offers a solid connection and easy removal without side-to-side tension to preserve integrity of cable.
- **N.** CO_2 connector accepts sensors for intubated and non-intubated patient applications without additional adapters, to maximize clinical functionality. CO_2 monitoring activates automatically when a sensor is connected.
- **O.** SpO_2 all use a common connection and include lock out for incompatible sensors. SpO_2 monitoring activates automatically when a proper sensor is connected.
- **P.** NIBP connector is self-locking and can be easily removed with one hand.

Q. 100mm Printer access is available from the front of the device.
R. Display
S. The device active viewing area is 212 mm (8.4 in) diagonal; 171 mm (6.7 in) wide and 128mm (5.0 in) high.
T. The device display is dual-mode color backlit display with a resolution of 640 x 480 pixels.
U. The primary mode is a black background with color waveforms and text data. Waveforms and values are automatically color synchronized to real-time display of patient data to facilitate assessment at a glance (ex. blue pulse oximetry waveform matched with blue pulse oximetry value; green ECG waveform matched with green heart rate).
V. A secondary mode is black parameter and real time patient data on a white background, for clear viewing in bright sunlight. The user may toggle between primary and secondary viewing modes with each mode available in less than 1 second.
W. The device displays patient ECG and alphanumeric characters for patient parameter values, device instructions, and prompts. The device provides the option to display one or two additional waveforms.
X. The device can be set up for display of up to three simultaneous waveforms.
Y. The device includes a 'home screen' key which, when depressed, returns the display to normal patient monitoring mode without the need to cycle or backtrack through menus.
Z. The display displays status of one or two batteries (including installed, active, low, require replacement, remaining capacities), Bluetooth connections and selected energy.

3. Defibrillator

A. The device uses a biphasic truncated exponential waveform with the following characteristics:
B. Voltage compensation to address varying patient impedance.
C. Variable duration based on patient impedance.
D. ***Escalating energy levels up to 360J Bi-Phasic to maximize clinical options and treat the widest range of patients.*** The full range of energy levels are accessible at any time (except internal defibrillation), as limited by pre-determined patient impedance ranges.
E. The device has the following energy accuracy:
F. ±1J or 10% of setting, whichever is greater, into 50 ohms.
G. ±1J or 10% of setting, whichever is greater, into 50 ohm. ±2J or 15% of setting whichever is greater into 25-175 ohms.
H. The device offers the following paddle options:
I. Hands-free pacing/defibrillation/ECG electrodes.
J. Adult Standard Hard Paddles and Pediatric Paddles with standard slip on, conical shaped pediatric paddle attachments with a nominal surface area of 15.4 cm2.
K. Standard paddles with the ability to select energy and charge the defibrillator without having to refer to the defibrillator control panel to facilitate ease of use.
L. The therapy cable has a length of 2.4m (8 ft), not including electrode assembly.
M. The charge time to 360 joules does not typically exceed 10 seconds.
N. The device can monitor the patient ECG for a potentially shockable rhythm and alert the operator, even while in Manual defibrillation mode.

4. External Defibrillation (AED)

A. The device is capable of being set up to power on in the AED mode.
B. The device can be set up to automatically and continuously monitor the patient ECG for a potentially shockable rhythm.
C. The device allows the operator to configure the output energy delivery sequence to be used during Advisory mode as 200/200/360 or 200/300/360 joules.
D. During AED mode when a shockable ECG rhythm is detected the device can be ready to deliver a shock within 20 seconds with a fully charged battery installed.
E. The device is capable of adjusting the AED protocol by providing the ability to adjust settings for energy protocol, Auto Analyze timing, Motion Detection, Pulse Check, CPR time after a shock, CPR time after No Shock Advised, Initial CPR, Pre-shock CPR, Metronome parameters, and stacked shocks to meet AHA, IEC and local protocols.

F. AED mode is allowed only with a hands-free electrode system.
G. The device allows switching from AED mode to Manual mode with or without a password or not allowed based on local protocol.
H. The device allows switching from AED mode to pacing.
I. The device allows advisory monitoring.
J. The device allows use of all the monitoring functions without initiating the AED prompted protocol when the device is turned on.
K. When needed, the AED mode prompted protocol can be initiated by pressing ANALYZE.
L. The device can be set up to restrict access to Manual mode therapies—that is, manual defibrillation, sync cardioversion, or pacing—by unauthorized users.
M. When in Advisory Monitoring, an ADVISORY MODE-MONITORING message appears continuously.
N. All configured monitoring functions such as NIBP, SpO2 and 12-lead ECG can be used in Advisory Monitoring.
O. The uppermost real-time waveform display is reserved for ECG information, Lead II; dashes are shown until the patient is connected to an ECG cable or therapy cable.
P. In Advisory Monitoring, LEAD II and PADDLES lead are the only ECG monitoring leads allowed.
Q. An ECG analysis system is active and automatically evaluates the patient ECG for a potentially shockable rhythm. If a shockable ECG rhythm such as VF is detected, a PUSH ANALYZE prompt occurs. Pressing ANALYZE causes the device to enter AED Mode.

5. Manual Defibrillation Mode

A. The device operates in manual mode using adult and pediatric hands-free pacing/defibrillation/ECG electrodes, adult standard paddles, or pediatric paddles.
B. The device can be set up to operate in Manual mode when it is turned on.
C. While in manual mode, the device allows the operator to select the following energy settings; 2, 3, 4, 5, 6, 7, 8, 9, 10, 15, 20, 30, 50, 70, 100, 125, 150, 175, 200, 225, 250, 275, 300, 325 and 360 joules or a user configurable sequence of 150-360 (1st shock), 150 - 360 (2nd shock), 150 - 360 joules (3rd shock).
D. The device allows he operator to select energy, charge and shock from front panel controls or from controls located on the paddles.

6. Synchronized Cardioversion

A. The device allows for a shock to be automatically delivered that is synchronized to a patient's ECG.
B. An indicator is shown on the ECG QRS where the shock will be delivered.
C. The device allows adjustment of the shock delivery point by the use of an ECG size control.
D. During synchronous cardioversion, the device begins energy transfer within 60ms of the QRS peak.
E. The Synch Mode may be set up to return to asynchronous mode after a synchronize shock or stay in synch mode.

7. Pacer

A. The device operates in demand and non-demand modes.
B. The device allows the user to program a preferred/default starting mode.
C. The device allows the operator to set the default rate and current values.
D. The device generates pacing pulses at a rate of 40 to 170ppm.
E. The accuracy of the pacing output rate is within +/- 1.5% over the entire range.
F. The device generates a monophasic, truncated exponential current pulse (20 +/- 1.5ms).
G. The device allows the operator to select the pacing output current from 0 to 200mA.
H. The device incorporates a pacing pause function which allows the operator to reduce the pacing rate by a factor of 4, to allow assessment of the patient's underlying ECG rhythm.
I. The pacing circuit includes automatic adjustment of the refractory period (function of rate) from 200 to 300ms +/- 3%, to ensure the delivered rate is consistent with the operator selected rate.

8. ECG Monitor

A. The device monitors patient ECG via the following means:
B. Three (3) wire cable for 3-lead ECG monitoring.
C. Five (5) wire cable for 7-lead ECG monitoring.
D. Ten (10) wire cable for 12-lead ECG acquisition. The cable should be multi-segmented (main trunk, 4-wire section, 6-wire section) to facilitate multiple functionality and minimize replacement costs.
E. When the 6 chest electrodes are removed, the 10 wire cable functions as a 4-wire cable.
F. Combination style pads (pacing/defibrillation/ECG electrodes) for paddles monitoring.
G. Lead selection; the device shall provide the following monitoring options:
H. Leads I, II, III with the 3-wire cable.
I. Leads I, II, III, AVR, AVL, and AVF with the 4-wire cable (simultaneous acquisition).
J. Leads I, II, III, AVR, AVL, AVF and C with the 5-wire cable (simultaneous acquisition).
K. Leads I, II, III, AVR, AVL, AVF, VI, V2, V3, V4, V5, and V6 with the 10-wire cable (simultaneous acquisition).
L. The monitor allows the operator to adjust the ECG size using the following settings: 4, 3, 2.5, 2, 1.5, 1, 0.5, 0.25 cm/mV; (fixed at 1 cm/mV for 12-lead).
M. The monitor digitally displays patient heart rates from 20 to 300 bpm.
N. The monitor flashes a heart symbol for each patient QRS detected.
O. The monitor incorporates a continuous patient surveillance system, which, while in advisory mode or as a VF/VT alarm in manual mode, will monitor the patient via paddles lead or Lead II for potentially shockable ECG rhythms and alert the operator to CHECK PATIENT if a shockable ECG rhythm is detected.
P. The device provides a continuous 1V/mV x 1.0 gain analog ECG output.
Q. The device provides common mode rejection of at least 90dB at 50/60Hz.
R. The device offers the following frequency response settings: Monitoring electrodes: 0.5 to 40Hz or 1.0 to 30Hz (monitoring frequency response); 0.05 to 40Hz or 0.05 to 150Hz (diagnostic frequency response).
S. Paddles: 2.5 to 30Hz.
T. Analog ECG Output: 0.67 to 32Hz (except 2.5 to 30Hz for Paddles ECG).

9. 12-Lead ECG Algorithm

A. ***The device incorporate University of Glasgow 12-Lead ECG analysis program***.
B. The analysis program includes interpretative statements to describe the 12-lead ECG including statements such as "Meets ST Elevation MI Criteria".
C. The 12-lead ECG provides information related to leads disconnected and noisy ECG and requires user interaction to proceed with acquiring a 12-lead ECG report and interpretation with noisy ECG data.
D. The device provides the option of printing the interpretation on the 12-Lead ECG report.
E. 9.5. The device provides the option of printing the 12-Lead ECG report at 25mm/sec or 50mm/sec.
F. The 12-lead ECG report shall offer a 3-Channel Standard format with an optional 4-Channel Standard, 3-Channel Cabrera or 4-Channel Cabrera format.
G. The device offers the option of printing automatically on the acquisition of a 12-Lead.
H. The device includes trending of ST measurement after an initial 12-Lead analysis and automatically generates a 12-Lead ECG to alert the operator if any change in ST elevation or depression is detected.
I. The 12-Lead ECG is derived from ten (10) physical ECG leads rather than extrapolated from only five (5) leads to ensure clinical accuracy consistent with the established monitoring standard.
J. The 12-Lead ECG algorithm distinguishes between adult and pediatric patients using different algorithms established by user-input age.
K. The 12 -Lead ECG algorithm distinguishes between male and female patients using different algorithms established by user-input gender.

10. Pulse Oximetry (SpO_2)

A. The device incorporates SpO_2 monitoring using Masimo® sensors.
B. Pulse Oximetry (SpO_2)
C. The device measures, displays and stores SpO_2 values in the range of 50 to 100%.
D. The device updates the SpO_2 displayed value (on average) every 4, 8, 12, or 16 seconds.
E. The saturation accuracy of the SpO_2 circuit shall be 70 to 100%.
F. The device display saturation rates from the SpO_2 circuit to within ±2 digits without motion and ±3 with motion.
G. Historical trended values can be displayed on-screen or on printed trending report.
H. The device displays pulse rates from 25 to 240 pulses per minute.
I. The device displays pulse rates from the SpO_2 circuit to within ±3 pulses per minute without motion and ±5 pulses per minute with motion.
J. The SpO_2 display section of the monitor shall include a dynamic signal strength bar graph.
K. The device has user-adjustable sensitivity and averaging time settings to compensate for low perfusion states and patient movement, respectively.
L. The device emits a pulse tone proportional to the displayed SpO_2 value.
M. The device can be set up to turn SpO_2 tone to off.
N. The device is capable of displaying an IR (pleth) waveform.
O. This waveform is configurable as part of pre-defined lead group with the option to display as a default. SpO_2 waveform has autogain control.

11. Noninvasive Blood Pressure (NIBP)

A. The device is capable of displaying blood pressure values in mmHg.
B. The device measures Systolic Pressure in range: 30 to 255 mmHg.
C. The device measures Diastolic Pressure in range: 15 to 220 mmHg.
D. The device measures Mean Arterial Pressure (MAP) in range: 20 to 235 mmHg.
E. The device measures BP with accuracy of maximum mean error of ±5 mmHg.
F. The device typically performs a blood pressure measurement in 20 seconds.
G. The device measures Pulse rate in range: 30 to 240 PPM.
H. The device measures pulse rate with accuracy ±2 PPM or ±2%, whichever is greater.
I. The device offers a choice of initial cuff inflation pressures.
J. The device can be set to perform automatic recurring measurements at the following set intervals - 2, 3, 5, 10, 15, 30, 60 minutes.
K. The device allows the user to set a pre-defined default setting for NIBP interval.
L. The device allows automatic cuff deflation in case of excessive pressure (greater than 290 Hg) or in case measurement time exceeds 120 seconds.
M. A range of disposable and reusable NIBP cuffs are available, including latex free.
N. NIBP cuffs are single bladder to facilitate placement independent of patient artery for rapid setup.
O. Historical trended values shall be displayed on-screen or on printed report.

12.Capnography ($EtCO_2$ monitoring)

A. The device incorporates capnography,.
B. Capnography monitoring activates automatically upon connecting FilterLine® or Smart CapnoLine®.
C. The device allows monitoring of intubated and non-intubated patients without the need for additional equipment, adapters, or setup.
D. The device does not have any CO_2 sensor external to the device due to external sensor vulnerability to damage and high replacement cost.
E. The device is capable of displaying CO_2 value in kPa, Vol %, or mmHg.
F. The device does not use any separate water traps or filters – these should be integrated into the sensor to facilitate ease of use and setup.
G. The device is specific to CO_2 and not adversely affected by the presence of Non-CO_2 gases. There is no requirement for user input to indicate which gases are present.
H. The device uses disposable CO_2 intubated and non-intubated sensors to eliminate risk of cross contamination between patients.

I. The capnography option is compatible with OridionFilterLine and Smart CapnoLine CO_2 accessories.
J. The device measure CO_2 pressure in range: 0 to 99 mmHg (0 to13.2kPa).The device shall display CO_2 waveform.
K. The device measures CO_2 with the following accuracy:0 to 80 bpm: 0 to 38 mmHg ±2 mmHg; 39 to 99 mmHg ±5% of reading plus 0.08% for every 1mmHg above 38 mmHg. >80 bpm: 0 to 18 mmHg ±2 mmHg; 19 to 99 mmHg: ±4mmHg or ±12% of reading whichever is higher.
L. The device measures respiration rate in a range of 0 to 99 breaths/minute.
M. The device measures respiration rate with the following accuracy:
N. 0 to 70 bpm: ±1 bpm 71 to 99 bpm: ±2 bpm
O. The device has a typical initialization time of 30 seconds. The initialization time will not exceed 180 seconds.
P. The rise time of the CO_2 waveform is less than or equal to 190 msec.
Q. The response time of CO_2 waveform including the delay time and rise time is 3.3sec.
R. This waveform can be set up as part of pre-defined lead group with the option to display as a default.
S. The device automatically compensates for ambient pressure changes.
T. Historical trended values display on-screen or on printed report.
U. The CO_2 system can be easily calibrated by certified technicians through the service menu using standard procedures with known sample gas value.

13. Alarms

A. The device incorporates a Quick Set feature which activates default values for parameter and patient alarms. Alarms are established relative to baseline rate and specific to each vital sign.
B. The user may select a wide or narrow tolerance of alarms around baseline.
C. The user may select a range of silence periods for the alarms.
D. The silence function applies only to the specific alarm that has been violated; new alarms will include an audible tone and are silenced separately.
E. Audible tone is always provided for VF/VT alarm.
F. The device incorporates a VF/VT alarm which activates continuous patient surveillance of potentially shockable ECG rhythms during manual mode operation with therapy electrodes and through standard ECG electrodes.

14. Trending

A. The device offers on-screen trending with choice of HR, PR (SpO_2), PR (NIBP), SPO_2(%), CO_2($ETCO_2$/$FiCO_2$), RR (CO_2), NIBP, IP1, IP2, or ST.
B. Trending is activated automatically for each vital sign used – no additional user intervention is required other than opting to view the trended data on-screen.
C. The device includes a timescale of 30 minutes, 1, 2, 4 or 8 hours, or autoscale.
D. The device includes up to 8 hours of trend data.
E. The device includes trending of ST measurement after an initial 12-lead analysis. A 12-lead ECG will automatically print to alert the operator following a series of consistent ST elevations or depressions.
F. A printed trend summary is available either on-demand or at the conclusion of the event summary.

15. Printer

A. The device prints a continuous strip of the displayed patient information.
B. The device includes a 100mm (3.9 in) thermal recorder that is easily accessible from the front of the device. Paper shall be of standard roll format to facilitate replacement and minimize waste.
C. The device prints at 25mm/sec or 12.5mm/sec +/- 5% (measured in accordance with AAMI EC-11, 4.2.5.2). The delay from display to printing is 8 seconds.
D. The device allows the operator to set up automatic printing of waveform events as they occur, in any combination.

E. The device offers the following frequency response settings for the printer: 0.5 to 40Hz (monitoring frequency) 1 to 30Hz (monitoring frequency) 0.05 – 40 Hz (diagnostic frequency) 0.05 to 150 Hz (diagnostic frequency)

16. Data Management

A. The device captures and stores patient data, events (including waveforms and annotations), continuous ECG waveform and diagnostic 12-Lead ECG reports in internal memory.

B. The device allows the operator to enter the following patient information: Last Name, First Name, Incident ID, Patient ID, Age, and Sex.
   1. If patient age has been previously entered while acquiring a 12-Lead ECG that value is automatically entered in the age field. If the age has been previously entered into the patient information field noted it will used when acquiring the first 12-Lead ECG without further user intervention.

C. The device allows stored reports to be retrieved for transmission to a remote location. Transmitted reports must be received by a personal computer (PC) with appropriate software installed.

D. The device provides a means to manage archived patient records. Access to these records in the device has optional password protection. Options to manage archived records shall include:
   1. Transmit archived patient records
   2. Print archived patient records
   3. Delete archived patient records
   4. Add demographic data to archived patient records

E. The total memory capacity of the device is at least 400 single waveform events or 360 minutes of continuous ECG. Maximum memory capacity for a single patient includes up to 200 single waveform reports and 90 minutes of continuous ECG.

F. Memory is internal rather than by removable cards, to eliminate replacement cost issues and to protect data integrity/patient confidentiality.

G. The device allows the operator to store the following report options:
   1. Short, medium, or long Code Summary
   2. Initial ECG
   3. Auto vital sign measurements every five minutes and whenever alarm limits are exceeded
   4. 3-channel or 4-channel format 12-Lead ECG report
   5. Continuous waveform - 360 minutes continuous ECG record
   6. Trend summary (includes patient information, vital signs data and vital signs graphs).
   7. Vital Signs – includes patient information, event and vital signs log.
   8. Snapshot – includes patient information and 8 seconds of transmitted ECG captured at the time of transmission.

H. Data Management Architecture When transferring data, the device outputs data in a format compatible with hospital cardiology information systems such as the Marquette MUSE CV® cardiovascular information system.

I. The data transferred from the device can be transferred and managed using Web-based distribution and management. The data center is managed by the manufacturer on a 7/24 basis.

17. Communications

A. The device is capable of transferring data records via a direct connection to a PC.

B. The device is capable of transferring data records by an internal Bluetooth to other Bluetooth devices.

C. The device provides the option of transmitting 12-Lead ECG reports to a personal computer installed with appropriate software via a direct cable or wireless connection.

D. The device and communication system supports the following 12-lead features:
   1. Alert at the receiving end that a 12-lead ECG has arrived
   2. Transmission to multiple locations
   3. Auto forwarding of 12-lead ECG report
   4. Sharing of electronic 12-lead report via email
   5. Acknowledgement of successful transmission at the device

18. Power

- **A.** Battery Options; the device operates using Lithium-ion, rechargeable batteries.
- **B.** The device operates with one or two batteries; it operates from only one battery at a time, monitors the state of each battery and automatically switches to the second battery when a low battery is detected for the first battery, without interruption of functional operation.
- **C.** Operating Time; two (2) new fully charged Lithium-ion batteries provide the following prior to shutdown at 20 C (68 F):
  1. Monitoring typical 360 minutes, minimum 340 minutes
  2. Pacing typical 340 minutes, minimum 320 minutes
  3. Defibrillation (360 J) typical 420 shocks minimum 400 shocks
  4. Capacity after Low Battery warning
  5. Monitoring typical 21 minutes, minimum 12 minutes
  6. Pacing typical 20 minutes, minimum 10 minutes
  7. Defibrillation (360 J) typical 30 shocks minimum 6 shocks
- **D.** The device displays battery icons at the top display area for each battery placed in the device. The battery icons indicate the state of battery charge and which of the two batteries is being used to supply power to the device. Low battery status is indicated with a low battery icon, flashing battery icon and a low battery message warning message.
- **E.** The batteries icons will not be active for any battery pack not provided from the original manufacturer.
- **F.** The Lithium-ion batteries have four horizontal bars, or battery charge indicators that indicate when the individual battery has: greater than 70% charge (four bars), greater than 50% charge (three bars), greater than 25% charge (two bars), and 25% or less charge (one bar). When both batteries reach a low battery condition, the device emits an audible voice prompt to replace the battery.
- **G.** The device retains the operator parameter settings with an inadvertent power loss of less than 30 seconds.
- **H.** The device displays a service indicator when a fault is detected.

19. Maintenance

- **A.** Each time the monitor/defibrillator is powered on, it performs internal self-tests to check that internal electrical components and circuitry work properly.
- **B.** The defibrillator stores the results of all user-initiated self-tests in a test log.
- **C.** When the defibrillator is on and a problem is detected that requires immediate service, such as a malfunctioning charging circuit, the Service LED is illuminated.
- **D.** The defibrillator performs an automatic self-test daily at 03:00 (3:00 A.M.), if not in use. During the automatic self-test, the defibrillator turns itself on (**ON** LED illuminates) briefly, completes self-test, stores the self-test results in a test log and turns itself off.
- **E.** The device is capable of a manual user test that includes charging and discharging the defibrillator, and printing a report.
- **F.** The device has provision to transfer the test log report to a PC by a cable or by wireless means.
- **G.** The device has provisions to upgrade for future AHA specifications.
- **H.** The device offers a user replaceable screen protector.
- **I.** The device offers a shock-absorbing handle.

20. Other

- **A.** Device is designed to help the operator meet HIPAA (Health Insurance Portability and Accountability Act of 1996) requirements.